DATA SHEET

ESPRIMO P3520 E85+

Your flexible economy PC

Issue: **September 2009**

ESPRIMO P3520 E85+
The ESPRIMO P3520 is the right choice for major customers requiring the latest standard features. This Microtower PC is the ultimate balance between top performance and very attractive prices. Freely configurable, with proven Intel® technology and an extended maximum 12-month product lifecycle - this PC is the perfect choice for cost-driven projects.

Excellent price/performance ratio
Cost-effective system for large account projects
- Entry-level PC with standard technology

Flexibility
Freedom of choice with tailored systems, perfect fit for specific requirements
- Flexible logistics concept - Customizing program (made4you)

Reliability
Excellent quality and functional stability
- Own development and production in Europe

Lifecycle
Hardware continuity for long lasting project needs
- Managed lifecycle up to 12 months

Technology
High-performance and reliable partner for your daily business
- Intel® G41 chipset and Intel® Core™2 Quad processors

Green IT

TWINLOAD

Components

Processor	Intel® Core™2 Quad Q9550 (2.83 GHz, 12 MB , 1333 MHz)
	Intel® Core™2 Quad Q9650 (3.0 GHz, 12 MB , 1333 MHz)
	Intel® Core™2 Quad Q9505 (2.83 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Quad Q9400 (2.66 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Quad Q8300 (2.5 GHz, 4 MB , 1333 MHz)
	Intel® Core™2 Quad Q8200 (2.33 GHz, 4 MB , 1333 MHz)
	Intel® Core™2 Duo E8600 (3.33 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E8500 (3.16 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E8400 (3.0 GHz, 6 MB , 1333 MHz)
	Intel® Core™2 Duo E7600 (3.06 GHz, 3 MB , 1066 MHz)
	Intel® Core™2 Duo E7500 (2.93 GHz, 3 MB , 1066 MHz)
	Intel® Core™2 Duo E7400 (2.8 GHz, 3 MB , 1066 MHz)
	Intel® Pentium® E6300 (2.8 GHz, 2 MB , 1066 MHz)
	Intel® Pentium® E5400 (2.7 GHz, 2 MB , 800 MHz)
	Intel® Pentium® E5300 (2.6 GHz, 2 MB , 800 MHz)
	Intel® Pentium® E5200 (2.5 GHz, 2 MB , 800 MHz)
	Intel® Celeron® E3200 (2.4 GHz, 1 MB , 800 MHz)
	Intel® Celeron® E1500 (2.2 GHz, 512 KB , 800 MHz)
	Intel® Celeron® 450 (2.2 GHz, 512 KB , 800 MHz)
Memory modules	4 GB (1 module(s) with 4 GB) DDR2, 800 MHz, PC2-6400, DIMM
	2 GB (1 module(s) with 2 GB) DDR2, 800 MHz, PC2-6400, DIMM
	1 GB (1 module(s) with 1 GB) DDR2, 800 MHz, PC2-6400, DIMM
Hard disk drives (internal)	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 3.5-inch, S.M.A.R.T.
Hard disk notes	Supporting NCQ and 3 GBit
Graphics add on cards (optional)	ATI Radeon® HD 3450 256 MB
	DVI Extension Adapter
	NVIDIA® GeForce® 9300GE 256 MB
	NVIDIA® GeForce® 9300GE 512 MB
	NVIDIA® Quadro NVS 290 256 MB
Modular bay options	1.44 MB Floppy, standard
	Blu-ray Disc Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, 3,5-Inch
Interface add on cards/components (optional)	
	WLAN III, 802.11g/Draft-n (Windows only)
	Modem adapter kit (EU)
	Modem 56k incl. RJ11 modem cable
	Gigabit Ethernet PCIe x1
	FireWire PCI-Card IEEE1394
	Dual serial card, PCI, EX-43092
Base unit	**ESPRIMO P3520 E85+**
Mainboard	
Mainboard type	D2841
Formfactor	µATX
Chipset	Intel® G41
Processor socket	LGA 775
Processor quantity maximum	1

Mainboard	
System bus (FSB / HT / QPI)	up to 1333 MHz
Memory slots	2 DIMM (DDR2)
Supported capacity RAM (max.)	8 GB
Memory frequency	800 MHz
Memory notes	Dual channel support. For dual channel performance, 2 memory modules have to be ordered. Capacity per channel has to be the same.
LAN	10/100/1000 MBit/s Broadcom BCM5784M
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	High Definition audio, 5.1 surround sound
I/O controller on board	
Serial ATA total	4
thereof eSATA	0
Controller functions	Serial ATA II 3 GBit
Interfaces	
Audio: line-in / microphone	1
Audio: line-in	1
Audio: line-out	1
Front audio: headphone	1
Front audio: microphone	1
USB 2.0 total	8
USB front	2
USB rear	4
USB internal	2
VGA	1
DVI	optional
Serial (RS-232)	1 (9pi, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	optional (25pin with EPP and ECP)
Input device / components	
	Optical USB wheel mouse Optional: Optical USB/PS2 tilt wheel mouse
Drive bays	
Drive bays total	5
3.5-inch internal bays	2
3.5-inch external bays	1
5.25-inch external bays	2
Slots	
PCI-Express x16	1 x (210 mm) full height
PCI-Express x1	1 x (210 mm) full height
PCI (32-bit / 33 MHz)	2 x (170/ 220 mm) full height
Graphic on board	
Graphics brand name	Intel® GMA 4500
Shared video memory	up to 256 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -

Graphic on board	
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1680 x 1050 pixel 1920 x 1200 pixel
Graphic notes	Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size Resolution (color depth up to 32 Bit/pixel) For TFT we recommend to use 60Hz.
Electrical values	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 85% / 87% / 85%)
	0-Watt mode with hard-off switch
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Operating voltage range	90 - 264 V
Operating line frequency range	47 - 63 Hz
Max. output of power supply	300 W
Power factor correction/active power	active
Monitor outlet	No
Power consumption	
Power consumption note	see white paper Energy Consumption
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=25f696ba-cfb4-4966-8f8b-3ca26fddf47a
Heat dissipation	
Heat dissipation notes	see white paper Energy Consumption
Noise for standard configuration (HDD, ODD, FDD)	
Noise emission	According to ISO9296
Related Processors for noise	Intel® Core™2 Duo E8600
Noise Operation mode 1: ODD load (Blue angel requirement)	3.9 B / 23 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.8 B / 23 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.7 B / 22 dB(A)
Noise Operation mode 4: High load	3.8 B / 23 dB(A)
Noise Operation mode 5: Office applications	3.8 B / 23 dB(A)
Idle mode (Blue Angel requirement)	3.7 B / 21 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position
Dimensions / Weight / Environmental	
Dimension (W x D x H)	175 x 425 x 353 mm
Weight	approx. 11 kg
Weight notes	Weight may vary depending on actual configuration
Operating ambient temperature	15 - 35°C
Compliance	
Product	ESPRIMO P3520
Model	MI4W-D2841
Germany	GS
Europe	CE
USA/Canada	FCC Class B cCSAus

Compliance	
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL)
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx
Operating system	
Operating system optional preinstalled	Microsoft® Windows Vista® Home Basic Microsoft® Windows Vista® Home Premium Microsoft® Windows Vista® Business 32bit TwinLoad Microsoft® Windows® XP Professional (DVD)
Operating system compatible	Linux
Additional Software	
Additional software (preinstalled)	Nero Essentials (burning software)
Additional software (optional)	Recovery DVD (Windows® XP / Windows Vista®) Drivers & Utilities DVD (DUDVD) Windows Vista® Drivers & Utilities DVD (DUDVD) Windows® XP
Compatibility (references)	
	DMI 2.0 PC 2001 WMI 1.5 USB 2.0
Manageability	
Manageability features	DeskUpdate Driver management DeskView Migrate (optional) DeskView Control (optional) PXE 2.1 Boot code Wake up from S5 (off mode)
DeskView features	WoL (Wake on LAN)
Manageability link	http://ts.fujitsu.com/manageability http://www.altiris.com/fsc
Security	
Physical security	Kensington Lock support Eye for padlock
System security	Boot sector virus protection Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Control of all USB interfaces
User security	User and supervisor BIOS password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
Serviceability	
Packaging information	
Packaging dimension	500x290x540 mm
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (g) EPS / PS	210 g
Material - Weight (g) PE	appr. 60 g
Packaging notes	printed user documentation is bleached in chlorine free process
Warranty **Maintenance and Support Services - the perfect extension**	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:
http://ts.fujitsu.com/aboutus
Take back and Recycling information:
http://ts.fujitsu.com/recycling

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